

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 09/830, SO2C
Source: TFW16
Date Processed by STIC: F-13-05

ENTERED



IFW16

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/830,502C

DATE: 01/13/2005
TIME: 17:23:47

Input Set : A:\C26151.app
Output Set: N:\CRF4\01132005\I830502C.raw

3 <110> APPLICANT: Barany, Francis
 4 Cao, Weiguo
 5 Tong, Jie
 7 <120> TITLE OF INVENTION: HIGH FIDELITY THERMOSTABLE LIGASE AND USES THEREOF
 9 <130> FILE REFERENCE: 19603/2615
 11 <140> CURRENT APPLICATION NUMBER: 09/830,502C
 C--> 12 <141> CURRENT FILING DATE: 2001-10-09
 14 <150> PRIOR APPLICATION NUMBER: 60/106,461
 15 <151> PRIOR FILING DATE: 1998-10-30
 17 <150> PRIOR APPLICATION NUMBER: PCT/US99/25437
 18 <151> PRIOR FILING DATE: 1999-10-29
 20 <160> NUMBER OF SEQ ID NOS: 24
 22 <170> SOFTWARE: PatentIn Ver. 2.1
 24 <210> SEQ ID NO: 1
 25 <211> LENGTH: 674
 26 <212> TYPE: PRT
 27 <213> ORGANISM: Thermus sp.
 29 <400> SEQUENCE: 1
 30 Met Thr Leu Glu Glu Ala Arg Arg Arg Val Asn Glu Leu Arg Asp Leu
 31 1 5 10 15
 33 Ile Arg Tyr His Asn Tyr Leu Tyr Tyr Val Leu Asp Ala Pro Glu Ile
 34 20 25 30
 36 Ser Asp Ala Glu Tyr Asp Arg Leu Leu Arg Glu Leu Lys Glu Leu Glu
 37 35 40 45
 39 Glu Arg Phe Pro Glu Leu Lys Ser Pro Asp Ser Pro Thr Glu Gln Val
 40 50 55 60
 42 Gly Ala Arg Pro Leu Glu Ala Thr Phe Arg Pro Val Arg His Pro Thr
 43 65 70 75 80
 45 Arg Met Tyr Ser Leu Asp Asn Ala Phe Ser Leu Asp Glu Val Arg Ala
 46 85 90 95
 48 Phe Glu Glu Arg Ile Glu Arg Ala Leu Gly Arg Lys Gly Pro Phe Leu
 49 100 105 110
 51 Tyr Thr Val Glu Arg Lys Val Asp Gly Leu Ser Val Asn Leu Tyr Tyr
 52 115 120 125
 54 Glu Glu Gly Ile Leu Val Phe Gly Ala Thr Arg Gly Asp Gly Glu Thr
 55 130 135 140
 57 Gly Glu Glu Val Thr Gln Asn Leu Leu Thr Ile Pro Thr Ile Pro Arg
 58 145 150 155 160
 60 Arg Leu Thr Gly Val Pro Asp Arg Leu Glu Val Arg Gly Glu Val Tyr
 61 165 170 175
 63 Met Pro Ile Glu Ala Phe Leu Arg Leu Asn Gln Glu Leu Glu Ala
 64 180 185 190
 66 Gly Glu Arg Ile Phe Lys Asn Pro Arg Asn Ala Ala Gly Ser Leu

(Pg, 67)

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/830,502C

DATE: 01/13/2005
TIME: 17:23:47

Input Set : A:\C26151.app
Output Set: N:\CRF4\01132005\I830502C.raw

67	195	200	205
69	Arg Gln Lys Asp Pro Arg Val	Thr Ala Arg Arg Gly	Leu Arg Ala Thr
70	210	215	220
72	Phe Tyr Ala Leu Gly Leu	Gly Leu Glu Glu	Thr Gly Leu Lys Ser Gln
73	225	230	235
75	240	His Asp Leu Leu Leu Trp	Leu Arg Glu Arg Gly Phe Pro Val
76	245	250	255
78	Gly Phe Thr Arg Ala Leu Gly	Ala Glu Gly Val	Glu Glu Val Tyr Gln
79	260	265	270
81	Ala Trp Leu Lys Glu Arg Arg	Lys Leu Pro Phe Glu Ala Asp Gly	Val
82	275	280	285
84	Val Val Lys Leu Asp Asp	Leu Ala Leu Trp Arg	Glu Leu Gly Tyr Thr
85	290	295	300
87	Ala Arg Thr Pro Arg Phe Ala Leu Ala	Tyr Lys Phe Pro Ala Glu	Glu
88	305	310	315
90	Lys Glu Thr Arg Leu Leu Ser Val	Ala Phe Gln Val Gly Arg	Thr Gly
91	325	330	335
93	Arg Ile Thr Pro Val Gly Val	Leu Glu Pro Val Phe Ile	Glu Gly Ser
94	340	345	350
96	Glu Val Ser Arg Val Thr Leu His	Asn Glu Ser Phe Ile	Glu Glu Leu
97	355	360	365
99	Asp Val Arg Ile Gly Asp Trp Val	Leu Val His Lys Ala Gly	Gly Val
100	370	375	380
102	Ile Pro Glu Val Leu Arg Val	Leu Lys Glu Arg Arg	Thr Gly Glu
103	385	390	395
105	400	Lys Pro Ile Ile Trp Pro Glu Asn Cys	Pro Glu Cys Gly His Ala Leu
106	405	410	415
108	420	425	430
109	Ile Lys Glu Gly Lys Val His Arg Cys	Pro Asn Pro Leu Cys Pro Ala	
111	435	440	445
114	Ile Gln Gly Leu Gly Glu Lys	Leu Ile Glu Lys Leu Leu Glu Lys Gly	
115	450	455	460
117	Leu Val Arg Asp Val Ala Asp Leu	Tyr Arg Leu Lys Lys Glu Asp Leu	
118	465	470	475
120	480	Val Asn Leu Glu Arg Met Gly Glu Lys	Ser Ala Glu Asn Leu Leu Arg
121	485	490	495
123	500	Gln Ile Glu Glu Ser Lys Gly Arg	Gly Leu Glu Arg Leu Leu Tyr Ala
124	505	505	510
126	520	Leu Gly Leu Pro Gly Val Gly Glu	Val Leu Ala Arg Asn Leu Ala Leu
127	525	515	
129	530	Arg Phe Gly His Met Asp Arg	Leu Leu Glu Ala Gly Leu Glu Asp Leu
130	535	535	540
132	550	Leu Glu Val Glu Gly Val Gly	Glu Leu Thr Ala Arg Ala Ile Leu Asn
133	555	545	560
135	565	Thr Leu Lys Asp Pro Glu Phe Arg Asp	Leu Val Arg Arg Leu Lys Glu
136	570	565	575
138	580	Ala Gly Val Glu Met Glu Ala Lys	Glu Arg Glu Gly Glu Ala Leu Lys
139	585	580	590

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/830,502C

DATE: 01/13/2005

TIME: 17:23:47

Input Set : A:\C26151.app
 Output Set: N:\CRF4\01132005\I830502C.raw

141 Gly Leu Thr Phe Val Ile Thr Gly Glu Leu Ser Arg Pro Arg Glu Glu
 142 595 600 605
 144 Val Lys Ala Leu Leu Arg Arg Leu Gly Ala Lys Val Thr Asp Ser Val
 145 610 615 620
 147 Ser Arg Lys Thr Ser Phe Leu Val Val Gly Glu Asn Pro Gly Ser Lys
 148 625 630 635 640
 150 Leu Glu Lys Ala Arg Ala Leu Gly Val Pro Thr Leu Ser Glu Glu Glu
 151 645 650 655
 153 Leu Tyr Arg Leu Ile Glu Glu Arg Thr Gly Lys Asp Pro Arg Ala Leu
 154 660 665 670
 156 Thr Ala
 160 <210> SEQ ID NO: 2
 161 <211> LENGTH: 2025
 162 <212> TYPE: DNA
 163 <213> ORGANISM: Thermus sp.
 165 <400> SEQUENCE: 2
 166 atgaccctag aggaggcccc caggcgcgtc aacgaactca gggacctgat ccgttaccac 60
 167 aactacctct attacgtctt ggacgcccccc gagatctccg acgcccaga cgaccggctc 120
 168 cttagggagc ttaaggagct ggaggagcgc ttcccggc tcaaaaagccc cgactcccc 180
 169 acggaacagg tggggcgag gcctctggag gccaccttcc gcccggtgcg ccacccccc 240
 170 cgcatgtact ccctggacaa cgcctttcc ttggacgagg tgagggcct tgaggagcgc 300
 171 atagagcggg ccctggggcg gaaggggccc ttcccttaca ccgtggagcg caaggtggac 360
 172 ggtcttccg tgaacctcta ctacgaggag ggcatttcgc tctttggggc caccggggc 420
 173 gacggggaga cccgggagga ggtgaccagg aaccccttca ccatccccac catccccgc 480
 174 cgcctcacgg gcgttccgga ccgcctcgag gtccggggcg aggtctacat gcccatagag 540
 175 gccttcctca ggctcaacca ggagctggag gaggcggggg agcgcatctt caaaaacccc 600
 176 aggaacgccc ccgcggggc otgcggcag aaagacccc ggtcacggc caggcggggc 660
 177 ctgagggcca cctttacgc cctggggctg ggcctggagg aaaccgggtt aaaaagccag 720
 178 cacgaccttc tcctatggct aagagagcgg ggcttcccg tggagcacgg ctttacccgg 780
 179 gcctggggg cggagggggt ggaggaggtc taccaggcct ggctcaagga gagggcggaaag 840
 180 ctccctttg aggccgacgg ggtgggtgtc aagctggacg acctcgccct ctggcgggag 900
 181 ctggggtaca cccggccac ccccccgttc gccctcgctt acaagtcccc ggccgaggag 960
 182 aaggagaccc gcctctctc cgtggccttc caggtggggc ggaccggcg catccccccc 1020
 183 gtggcggtc tggagccccgt tttcatagag ggcagcggagg tgagccgggt caccctccac 1080
 184 aacgagagct tcattgagga gctggacgtg cgcatcgccg actgggtgt ggtccacaag 1140
 185 gcggggcgccc tgattcccgaa ggtgctgagg gtccgtaaag agcgcgcac cggggaggag 1200
 186 aagcccatca tctggcccgaa gaaactgcccc gagtgcgccc acgcctctcat caaggagggg 1260
 187 aagggtccacc gctgccccaa ccccttgtgc cccggccaagc gctttggggc catccgcccac 1320
 188 tacgcctccc gcaaggccat ggacatccag ggcctggggg agaagctcat agaaaagctt 1380
 189 ctggaaaagg gcctgggtccg ggacgtggcc gacctctacc gcctgaagaa ggaggacctg 1440
 190 gtgaacctgg agcgcatgggg ggagaagagc gcagagaacc tccctcccca gataagaggag 1500
 191 agcaaggggcc gcggccttggaa gcgcctccctt tacgccttgg gccttcccg ggtggggggag 1560
 192 gtgctggccc ggaacctggc cctccgttcc ggccacatgg accgccttct ggaggcgccc 1620
 193 ctcgaggacc tcctggaggt ggagggggtg ggcgagctca cgcggccggc catcctgaat 1680
 194 accctaaagg acccgaggatt cogggacctg gtgcggccgc tgaaggaggc cgggggtggag 1740
 195 atggaggcca aagagcgaaa gggcgaggcc ttgaaggggc tcaccttcgt catcaccggg 1800
 196 gagtttccc ggccccggga ggaggtgaag gccctccctt a ggcggcttgg ggccaagggtg 1860
 197 acggactcgg tgagccgcaa gacgagcttc ctgggtgtgg gggagaaccc ggggagcaag 1920
 198 ctggaaaagg cccgcgcctt ggggtcccc accctgagcg aggaggagct taccgcctc 1980

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/830,502C

DATE: 01/13/2005

TIME: 17:23:47

Input Set : A:\C26151.app

Output Set: N:\CRF4\01132005\I830502C.raw

199 attgaggaga ggacgggcaa ggacccaagg gccctcacgg cctag 2025
202 <210> SEQ ID NO: 3
203 <211> LENGTH: 20
204 <212> TYPE: DNA
205 <213> ORGANISM: Artificial Sequence
207 <220> FEATURE:
208 <223> OTHER INFORMATION: Description of Artificial Sequence: probe or
209 primer
211 <220> FEATURE:
212 <221> NAME/KEY: tRNA
213 <222> LOCATION: (4)
214 <223> OTHER INFORMATION: w at position 4 can be T or A
216 <220> FEATURE:
217 <221> NAME/KEY: unsure
218 <222> LOCATION: (5)
219 <223> OTHER INFORMATION: s at position 5 can be C or G
221 <220> FEATURE:
222 <221> NAME/KEY: unsure
223 <222> LOCATION: (12)
224 <223> OTHER INFORMATION: s at position 12 can be C or G
226 <220> FEATURE:
227 <221> NAME/KEY: unsure
228 <222> LOCATION: (15)
229 <223> OTHER INFORMATION: r at position 15 can be G or A
231 <220> FEATURE:
232 <221> NAME/KEY: unsure
233 <222> LOCATION: (18)
234 <223> OTHER INFORMATION: y at position 18 can be T or C
236 <400> SEQUENCE: 3 20
237 atcwsccgacg csgartayga
240 <210> SEQ ID NO: 4
241 <211> LENGTH: 7
242 <212> TYPE: PRT
243 <213> ORGANISM: Artificial Sequence
245 <220> FEATURE:
246 <223> OTHER INFORMATION: Description of Artificial Sequence: protein
248 <400> SEQUENCE: 4
249 Ile Ser Asp Ala Glu Tyr Asp
250 1 5
253 <210> SEQ ID NO: 5
254 <211> LENGTH: 20
255 <212> TYPE: DNA
256 <213> ORGANISM: Artificial Sequence
258 <220> FEATURE:
259 <223> OTHER INFORMATION: Description of Artificial Sequence: probe or
260 primer
262 <220> FEATURE:
263 <221> NAME/KEY: unsure
264 <222> LOCATION: (3)

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/830,502C

DATE: 01/13/2005

TIME: 17:23:47

Input Set : A:\C26151.app
Output Set: N:\CRF4\01132005\I830502C.raw

265 <223> OTHER INFORMATION: s at position 3 can be C or G
267 <220> FEATURE:
268 <221> NAME/KEY: unsure
269 <222> LOCATION: (6)
270 <223> OTHER INFORMATION: s at position 6 can be C or G
272 <220> FEATURE:
273 <221> NAME/KEY: unsure
274 <222> LOCATION: (8)
275 <223> OTHER INFORMATION: k at position 8 can be G or T
277 <220> FEATURE:
278 <221> NAME/KEY: unsure
279 <222> LOCATION: (9)
280 <223> OTHER INFORMATION: s at position 9 can be G or C
282 <220> FEATURE:
283 <221> NAME/KEY: unsure
284 <222> LOCATION: (12)
285 <223> OTHER INFORMATION: s at position 12 can be G or C
287 <220> FEATURE:
288 <221> NAME/KEY: unsure
289 <222> LOCATION: (15)
290 <223> OTHER INFORMATION: y at position 15 can be C or T
292 <220> FEATURE:
293 <221> NAME/KEY: unsure
294 <222> LOCATION: (18)
295 <223> OTHER INFORMATION: r at position 18 can be A or G
297 <400> SEQUENCE: 5
298 ccshtscksc csacytgraa 20
301 <210> SEQ ID NO: 6
302 <211> LENGTH: 20
303 <212> TYPE: DNA
304 <213> ORGANISM: Artificial Sequence
306 <220> FEATURE:
307 <223> OTHER INFORMATION: Description of Artificial Sequence: probe or
308 primer
310 <220> FEATURE:
311 <221> NAME/KEY: unsure
312 <222> LOCATION: (9)
313 <223> OTHER INFORMATION: v at position 9 can be C, G, or A
315 <220> FEATURE:
316 <221> NAME/KEY: unsure
317 <222> LOCATION: (11)
318 <223> OTHER INFORMATION: r at position 11 can be A or G
320 <220> FEATURE:
321 <221> NAME/KEY: unsure
322 <222> LOCATION: (12)
323 <223> OTHER INFORMATION: y at position 12 can be T or C
325 <220> FEATURE:
326 <221> NAME/KEY: unsure
327 <222> LOCATION: (16)

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 01/13/2005
 PATENT APPLICATION: US/09/830,502C TIME: 17:23:48

Input Set : A:\C26151.app
 Output Set: N:\CRF4\01132005\I830502C.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:15; Xaa Pos. 18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36
 Seq#:15; Xaa Pos. 37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55
 Seq#:15; Xaa Pos. 56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74
 Seq#:15; Xaa Pos. 75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93
 Seq#:15; Xaa Pos. 94,95,96,97,98,99,100,101,102,103,104,105,106,107,108,109
 Seq#:15; Xaa Pos. 110,111,112,113,114,115,116,117,118,119,120,126,127,128
 Seq#:15; Xaa Pos. 129,130,131,132,133,134,135,136,137,138,139,140,141,142
 Seq#:15; Xaa Pos. 143,144,145,146,147,148,149,150,151,152,153,154,155,156
 Seq#:15; Xaa Pos. 157,158,159,160,161,162,163,164,165,166,167,168,169,170
 Seq#:15; Xaa Pos. 171,172
 Seq#:16; Xaa Pos. 18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36
 Seq#:16; Xaa Pos. 37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55
 Seq#:16; Xaa Pos. 56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74
 Seq#:16; Xaa Pos. 75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93
 Seq#:16; Xaa Pos. 94,95,96,97,98,99,100,101,102,103,104,105,106,107,108,109
 Seq#:16; Xaa Pos. 110,111,112,113,114,115,116,117,118,119,120,129,130,131
 Seq#:16; Xaa Pos. 132,133,134,135,136,137,138,139,140,141,142,143,144,145
 Seq#:16; Xaa Pos. 146,147,148,149,150,151,152,153,154,155,156,157,158,159
 Seq#:16; Xaa Pos. 160,161,162,163,164,165,166,167,168,169,170,171,172,173
 Seq#:16; Xaa Pos. 174,175
 Seq#:17; Xaa Pos. 18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36
 Seq#:17; Xaa Pos. 37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55
 Seq#:17; Xaa Pos. 56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74
 Seq#:17; Xaa Pos. 75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93
 Seq#:17; Xaa Pos. 94,95,96,97,98,99,100,101,102,103,104,105,106,107,108,109
 Seq#:17; Xaa Pos. 110,111,112,113,114,115,116,117,118,119,120,126,127,128
 Seq#:17; Xaa Pos. 129,130,131,132,133,134,135,136,137,138,139,140,141,142
 Seq#:17; Xaa Pos. 143,144,145,146,147,148,149,150,151,152,153,154,155,156
 Seq#:17; Xaa Pos. 157,158,159,160,161,162,163,164,165,166,167,168,169,170
 Seq#:17; Xaa Pos. 171,172
 Seq#:18; Xaa Pos. 18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36
 Seq#:18; Xaa Pos. 37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55
 Seq#:18; Xaa Pos. 56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74
 Seq#:18; Xaa Pos. 75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93
 Seq#:18; Xaa Pos. 94,95,96,97,98,99,100,101,102,103,104,105,106,107,108,109
 Seq#:18; Xaa Pos. 110,111,112,113,114,115,116,117,118,119,120,126,127,128
 Seq#:18; Xaa Pos. 129,130,131,132,133,134,135,136,137,138,139,140,141,142
 Seq#:18; Xaa Pos. 143,144,145,146,147,148,149,150,151,152,153,154,155,156
 Seq#:18; Xaa Pos. 157,158,159,160,161,162,163,164,165,166,167,168,169,170
 Seq#:18; Xaa Pos. 171,172
 Seq#:19; Xaa Pos. 18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36
 Seq#:19; Xaa Pos. 37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55
 Seq#:19; Xaa Pos. 56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74
 Seq#:19; Xaa Pos. 75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 01/13/2005
PATENT APPLICATION: US/09/830,502C TIME: 17:23:48

Input Set : A:\C26151.app
Output Set: N:\CRF4\01132005\I830502C.raw

Seq#:19; Xaa Pos. 94,95,96,97,98,99,100,101,102,103,104,105,106,107,108,109
Seq#:19; Xaa Pos. 110,111,112,113,114,115,116,117,118,119,120,126,127,128
Seq#:19; Xaa Pos. 129,130,131,132,133,134,135,136,137,138,139,140,141,142
Seq#:19; Xaa Pos. 143,144,145,146,147,148,149,150,151,152,153,154,155,156
Seq#:19; Xaa Pos. 157,158,159,160,161,162,163,164,165,166,167,168,169,170
Seq#:19; Xaa Pos. 171,172
Seq#:20; Xaa Pos. 18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/830,502C

DATE: 01/13/2005

TIME: 17:23:48

Input Set : A:\C26151.app

Output Set: N:\CRF4\01132005\I830502C.raw

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:469 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:16
M:341 Repeated in SeqNo=15
L:522 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:16
M:341 Repeated in SeqNo=16
L:575 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:16
M:341 Repeated in SeqNo=17
L:628 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:16
M:341 Repeated in SeqNo=18
L:681 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:16
M:341 Repeated in SeqNo=19
L:734 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:16
M:341 Repeated in SeqNo=20
L:787 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:16
M:341 Repeated in SeqNo=21
L:840 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:16
M:341 Repeated in SeqNo=22
L:893 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:16
M:341 Repeated in SeqNo=23
L:941 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0